

REMARKS

Claims 1-7 and 9-18 are pending herein.

I. The obviousness rejections based on Sasaki (US 6,357,514) and Zeighami (US 2003/0183371).

The USPTO respectfully rejects Claims 9-15 under 35 U.S.C. § 103(a) as being unpatentable over Sasaki (US 6,357,514) in view of Zeighami (US 2003/0183371).

A. The cited references do not teach or suggest a metal shield plate press-connected to fins by forming a concave portion on both sides of the metal shield plate, wherein said concave portions are opposed to each other at a given position on the metal shield plate, as claimed in claim 9.

Claim 9 claims in relevant part:

“a metal shield plate having a plurality of slits including linear ~~or~~ and/or curved portions into which said respective fins are inserted along said slits, and press-connected to said fins by forming a concave portion and an enlarged portion at the edge of said metal shield plate on both sides of said metal shield plate, wherein said concave portions are opposed to each other at a given position on the metal shield plate.” (emphasis added)

No new matter is added by these amendments. Support for the amendments is found in present Figure 7 and on pages 12-13 of the present specification. Regarding these limitations, it is respectfully not seen where the cited references teach or suggest the claimed structure quoted above.

Specifically, the USPTO respectfully alleges on pages 5 of the Office Action that Figure 8 of Sasaki (shown as Present Office Action Fig. 1) teaches a concave portion on both sides of the metal shield plate.

However, it is respectfully noted that the alleged concave portion on the bottom of the plate and the alleged concave portion on the top of the plate of Sasaki are not opposed to each other at a given position on the metal shield plate, as claimed in claim 9. Instead, Figure 8 of Sasaki shows that the alleged top concave portion and the alleged bottom concave portion

are laterally displaced from each other. In other words, in Figure 8 of Sasaki, the bottom concave portion is displaced to the left from the position of the top concave portion. Thus, the alleged concave portions of Sasaki are not **opposed to each other at a given position** on the metal shield plate, as claimed in claim 9.

Additionally, Zeighami does not overcome this deficiency in the primary reference Sasaki. Specifically, Zeighami is only cited for allegedly teaching a fin-fixing member to transfix the plurality of metal fins, and it respectfully does not teach or suggest anything about concave portions on the base member.

Additionally, there is no “common sense” reason or other motivation to modify the cited references to achieve the specifically claimed structure of claim 1. For example, as seen in Figure 8 of Sasaki, curved portion 11 pushes against base portion 22. In order for curved portion 11 to effectively push against base portion 22, the alleged concave portions in Sasaki must be displaced from each other. In other words, **if the alleged concave portions in Sasaki were opposed to each other at a given position, as claimed in claim 9, they would not be as effective in pressing against base portion 22.** Thus, there is no “common sense” reason to modify the structure taught in Sasaki such that the concave portions would be opposed to each other at a given position, as claimed in claim 9.

In contrast, present Figure 7 illustrates one possible embodiment of the claimed structure quoted above. Specifically, present Figure 7 shows the heat dissipating portion 4 of a fin inserted through a slit in the upper portion 9 of a metal shield plate 7. **The fin and the metal shield plate are fixed together by forming concave portions 14 on both sides of the metal shield plate close to the fin.** Additionally, in present Figure 7, it is clearly seen that the top concave portion is positioned directly over the bottom concave portion. In other words, **the concave portions are opposed to each other at a given point on the metal shield plate,** as claimed in claim 9.

Thus, it is respectfully asserted that the cited references, taken either alone or in combination, do not teach or suggest all the claimed limitations of claim 9. Therefore, it is respectfully asserted that claim 9 is not obvious over the cited references.

B. Further explanation.

Applicants also respectfully note that the forming of a concave portion by crimping results in plastic deformation of an enlarged portion at the edge on the metal shield plate (see Figure 7). The enlarged portions on both sides of the fin push the fin from both sides by which the fins are connected with the metal shielding plate.

In contrast, Sasaki allegedly teaches concave portions of the metal shield place that press the base portion of the fins, and not the fins themselves (see Figure 8 of Sasaki).

Additionally, Applicants respectfully note that Sasaki discloses a heat sink provided with **a mountain shaped fin**, which is difficult to fabricate and also to fit to the base member.

In contrast, the device according to claim 9 comprises a fin fabricated from a plate and is inserted into the slit provided in the metal shield plate. The fin is inserted into the slit of the metal shielding plate and fixed and press-connected to the plate by forming a concave section.

Thus, it is respectfully asserted that claim 9 is allowable over the cited references.

C. The dependent claims.

As noted above, it is respectfully asserted that independent claim 9 is allowable, and therefore it is further respectfully asserted that dependent claims 10-15 are also allowable.

II. Conclusion.

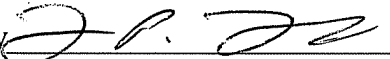
Reconsideration and allowance of all of the claims is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicants seek to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

CANTOR COLBURN LLP

By 

Daniel P. Lent

Registration No. 44,867

Date: October 31, 2007
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone (860) 286-2929
Facsimile (860) 286-0115
Customer No.: 23413